Listing of Claims:

Claims 1-214 (Cancelled).

215. (Previously Pending) A method for producing oil with an altered fatty acid profile comprising extracting said oil with an altered fatty acid profile from a microbial cell culture produced by culturing a microbial cell comprising a recombinant nucleic acid that is a DNA molecule comprising the coding region of the sequence in SEQ ID NO:1, said nucleic acid operably linked to a promoter functional in said cell, wherein a polypeptide encoded by said nucleic acid is expressed in sufficient amount in said culture to alter the fatty acid profile.

216. (Previously Presented) The method of claim 215, further comprising purifying a component of said oil.

217. (Previously Presented) The method of claim 216, wherein said component is a phospholipid.

218. (Previously Presented) The method of claim 216, wherein said component is a sulfolipid.

219. (Previously Presented) The method of claim 216, wherein said component is a glycolipid.

220. (Previously Presented) The method of claim 216, wherein said component is an acylglycerol.

221. (Previously Presented) The method of claim 216, wherein said component is a monoacylglycerol.

222. (Previously Presented) The method of claim 216, wherein said component is a diacylglycerol.

223. (Previously Presented) The method of claim 216, wherein said component is a triacylglycerol.

224. (Previously Presented) The method of claim 216, wherein said component is a fatty acid.

Claims 225-254 (Cancelled).

255. (Previously Presented) A method for producing oil with an altered fatty acid profile comprising extracting said oil with an altered fatty acid profile from a microbial cell culture produced by culturing a recombinant microbial cell comprising a polypeptide comprising the amino acid sequence depicted in SEQ ID NO:2, wherein said polypeptide is expressed in sufficient amount in said culture to alter the fatty acid profile.

256. (Previously Presented) The method of claim 255, further comprising purifying a component of said oil.

257. (Previously Presented) The method of claim 256, wherein said component is a phospholipid.

258. (Previously Presented) The method of claim 256, wherein said component is a sulfolipid.

259. (Previously Presented) The method of claim 256, wherein said component is a glycolipid.

260. (Previously Presented) The method of claim 256, wherein said component is an acylglycerol.

261. (Previously Presented) The method of claim 256, wherein said component is a monoacylglycerol.

262. (Previously Presented) The method of claim 256, wherein said component is a diacylglycerol.

263. (Previously Presented) The method of claim 256, wherein said component is a triacylglycerol.

264. (Previously Presented) The method of claim 256, wherein said component is a fatty acid.

Claims 265-322 (Cancelled).

323. (Currently Amended) A method for producing oil with an altered fatty acid profile comprising extracting said oil with

an altered fatty acid profile from a microbial cell culture produced by culturing a microbial cell comprising a recombinant nucleic acid that is a DNA molecule with~~The method of claim 225, wherein the recombinant nucleic acid has~~ at least 95% homology to the coding region of the sequence depicted in SEQ ID NO:1, said nucleic acid operably linked to a promoter functional in said cell, wherein a polypeptide encoded by said nucleic acid forms a monounsaturated bond between carbons 6 and 7 of a fatty acid as numbered from a carboxy terminus thereof, wherein said polypeptide is expressed in sufficient amount in said culture to alter the fatty acid profile.

324. (Currently Amended) A method for producing oil with an altered fatty acid profile comprising extracting said oil with an altered fatty acid profile from a microbial cell culture produced by culturing a recombinant microbial cell comprising a polypeptide with~~The method of claim 265, wherein the polypeptide has~~ at least 95% homology to the sequence depicted in SEQ ID NO:2 to produce the microbial cell culture, wherein said polypeptide forms a monounsaturated bond between carbons 6 and 7 of a fatty acid as numbered from a carboxy terminus thereof, wherein said polypeptide is expressed in sufficient amount in said culture to alter the fatty acid profile.

325. (Previously Presented) The method of claim 215, wherein said cell is a fungal cell.

Claims 326-327 (Cancelled).

328. (Previously Presented) The method of claim 255, wherein said cell is a fungal cell.

Claims 329-335 (Cancelled).

336. (Previously Presented) The method of claim 323, wherein said cell is a fungal cell.

337. (Previously Presented) The method of claim 324, wherein said cell is a fungal cell.

338. (Previously Presented) The method of claim 325, wherein said fungal cell is a yeast cell.

Claims 339-340 (Cancelled).

341. (Previously Presented) The method of claim 328, wherein said fungal cell is a yeast cell.

Claims 342-348 (Cancelled).

349. (Previously Presented) The method of claim 336, wherein said fungal cell is a yeast cell.

350. (Previously Presented) The method of claim 337, wherein said fungal cell is a yeast cell.

351. (Previously Presented) The method of claim 338, further comprising purifying a component of said oil.

Claims 352-353 (Cancelled).

354. (Previously Presented) The method of claim 341, further comprising purifying a component of said oil.

Claims 355-361 (Cancelled).

362. (Previously Presented) The method of claim 349, further comprising purifying a component of said oil.

363. (Previously Presented) The method of claim 350, further comprising purifying a component of said oil.

364. (Previously Presented) The method of claim 351, wherein said component is selected from the group consisting of phospholipid, a sulfolipid, a glycolipid, an acylglycerol, a monoacylglycerol, a diacylglycerol, a triacylglycerol, and a fatty acid.

Claims 365-366 (Cancelled).

367. (Previously Presented) The method of claim 354,

wherein said component is selected from the group consisting of phospholipid, a sulfolipid, a glycolipid, an acylglycerol, a monoacylglycerol, a diacylglycerol, a triacylglycerol, and a fatty acid.

Claims 368-372 (Cancelled).

373. (Previously Presented) The method of claim 363, wherein said component is selected from the group consisting of phospholipid, a sulfolipid, a glycolipid, an acylglycerol, a monoacylglycerol, a diacylglycerol, a triacylglycerol, and a fatty acid.